A NEW AUSTRALIAN CAPRELLID.

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Fam. *CAPRELLIDAE.*

Gen. *PARAPROTO, Mayer.*

1903, *Paraproto*, Mayer, Siboga-Expeditie, vol. 34, pp. 12, 24.

From Slabber's Phtisica, for which Mayer uses the later name *Proto*, the present genus is distinguished by having only the third and fourth segments of the peraeon furnished with branchial vesicles, the third peraeopod with the normal number of joints, and only two pairs of pleopods. It was instituted to receive the two Australian species described by Professor Haswell in the Proceedings of the Linnean Society of New South Wales, vol. 9, pt. 4, pp. 993, 998, under the names *Proto condylata*, and *Proto spinosa*, the date of publication being 1885. They were noticed under the original names by Mayer in 1890, and again in 1903 with additional figures and comments under the new generic title. The two species are distinguished one from the other and from the species about to be described by well marked characters. But at the same time the new species rather curiously combines some of the features by which the other two are kept apart.

PARAPROTO GABRIELI, n. sp.

(Plate III.)

The head is smooth, the only segment of the peraeon with a conspicuous spine-like dorsal process is the second, the three following segments being slightly raised in the middle of the back. The second has a spine also on each side above the insertion of the gnathopods. The eye is small. The first antennae have the first joint two-fifths the length of the second, the much more slender third joint is three-fourths as long as the second, and the flagellum of some thirty joints nearly equals the first and second joints of the peduncle combined. The second antennae are slender, not much shorter than the peduncle of the first, the last joint of the peduncle two-thirds the length of the long penultimate joint, the flagellum of sixteen or seventeen joints being rather longer than both combined.

The mouth-organs, as will be seen by the illustrations, are very like those of *Phtisica*, in accord with Mayer's definition of the genus.

The first gnathopod is of the ordinary type; the second in general appearance resembles that of the adult male in Haswell's smooth-bodied *P. condylatus*, with the large hand distally produced beyond the insertion of the finger, but whereas in Haswell's species the fifth joint or carpus is as usual very small, here it has the rare character of being elongate, being more than half the length of the long and much broader hand. The commencement of the palm is marked by an outstanding tooth followed by a rounded tubercle and accompanied by spinules, many more or less minute pairs of which attend the very sinuous margin to the hinge of the finger.

The first and second peraeopods are alike, having the fourth joint two-thirds the length of the long second, and about as long as the three following joints combined; the sixth joint has on the inner margin three outstanding spines proximally, more conspicuous than those which follow. These limbs are much shorter than the second gnathopods, not of the same length as in the two species described by Haswell. The branchial vesicles are long and slender, slightly but conspicuously twisted, thus making an interesting approach, by convergence, to the spirally contorted branchiae in *Cyamus scammoni*, Dall. Though this twisting is not described for the branchiae of the earlier species of *Paraproto*, it is indicated in Haswell's figure of *P. spinosus*. On the other hand in his *P. condylatus* these branchiae are shown by Mayer's figure to be perfectly simple. The third peraeopods, though normal in the number of joints, are very short,

about half as long as either of the two preceding pairs. The fourth pair are missing from the single specimen. The fifth pair are stouter than the first, and somewhat longer though their second joint is not so long, being little longer than either the fourth, fifth, or sixth; the sixth has two pairs of spines at the end of the palm which is reached by the long slender finger.

The small pleon carries two pairs of two-jointed pleopods.

Length of the specimen 22 mm. from front of head to end of pleon, of first antennae about 16.5 mm., of second gnathopod 18 mm.

Locality.—Western Port, Victoria, dredged among seaweed in 2-4 fathoms. This is the place at which *P. spinosus* was met with.

Mr. Allan R. McCulloch, to whom I am indebted for the opportunity of describing the specimen, tells me that it was collected by his friend Mr. Joseph Gabriel, whose name I therefore have the pleasure of using for the new species.

Description of Plate III.

Paraproto gabrieli, n. sp.

n.s. Rough sketch of specimen, natural size.

C. Cephalon with first segment of the peraeon and part of the second.

Pl. Pleon with pleopods.

a.s., a.i. First and second antennae.

l.s., m., mx. 1., 2., mxp. Upper lip, mandible, first and second maxillae, maxilliped.

gn. 1., 2., prp. 1., 3., 5. First and second gnathopods, first, third, and distal part of fifth peraeopods.

The head, pleon, antennae, and limbs are magnified to a uniform scale.

The mouth-organs are also on a uniform but much higher scale of magnification.